

As Early as Possible

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AS EARLY AS POSSIBLE

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Regardless of whether a child develops special needs over time or has them from birth, research clearly indicates that the sooner special needs are detected and tended to, the greater the impact of services. A core finding generated by interdisciplinary research into early childhood development and intervention is that “the course of development can be altered in early childhood by effective interventions that change the balance between risk and protection, thereby shifting the odds in favor of more adaptive outcomes” (Shonkoff and Phillips, 2000, p. 4). Thus, for both the quality of care to children, and the rate of return on investment, timely action is crucial.

Success or failure in achieving timely action hinges on many factors, but three processes in particular are highly influential for enabling children’s needs to be addressed as early as possible: detection and assessment; intervention; and support. The purpose of this contribution is to clarify key considerations related to facilitating each of these processes detection and assessment; intervention; and support. In addition, barriers and enablers related to each process are also discussed. The paper concludes with recommendations for action at the nexus of research, policy and practice.

1. Early detection and assessment

1.1 Key considerations related to detection and assessment

Early detection and assessment of children’s special needs is important for multiple reasons. First, the detection of special needs at a young age helps caregivers by describing and (sometimes) explaining characteristics about a child; this provides validation to caregivers who have been concerned, and can raise awareness in those who may have not noticed or understood a child’s special needs. Second, formal identification of special needs can open up pathways to services that may help the child directly (e.g. learning resources), indirectly (e.g. parental support) or both. Third, understanding a child’s abilities and needs can serve formative goals, such as shaping learning trajectories or setting priorities in therapies.

1.2 Barriers and enablers related to detection and assessment

Several barriers related to detection and assessment are have been described in literature. For example, it is easier to identify risk factors than it is to identify than at-risk children. Experts note that particularly children whose developmental problems are more subtle, though often quite serious, tend to remain undetected until learning and behavioral problems arise at school (Glascoe, 2000; Williams & Holmes, 2004). This is due to both the fact that at subtle problems are more difficult to detect, and that screening and referral mechanisms are not always optimal. Further, high quality screening tools are not available for all areas requiring treatment (Al-Qabandi, Gorter, & Rosenbaum, 2011; Guralnick, 2005).

At the same time, it is important to note research on enabling factors related to detection and assessment. Absolutely essential is the fact that routine surveillance has been shown to work (Tebruegge, Nandini, & Ritchie, 2004). In so doing, recent literature has emphasized that parent knowledge is very helpful and could be used more in many cases (Williams & Holmes, 2004). Additionally enabling research is that which shows the clear added-value for children, including increased likelihood of graduating from high school, living independently, employment, and decreased criminality and teen pregnancy (Barnett & Escobar, 1990; Gomby et al. 1995). The fact that early intervention benefits not only the children themselves, but society at large is also an extremely powerful enabler. According to Glascoe (2000), Society saves between £18,000 and £60,000 for each at-risk or disabled child that receives 2 years of early intervention prior to school entrance.

2. Early intervention

2.1 Key considerations related to early intervention

Early intervention refers to rapidly responding to developing special needs of children at any age, but when attending to the special needs of very young children, the term Early Childhood Intervention (ECI) is often used. ECI is defined as ‘a composite of services/provisions for very young children and their families, provided at their request at a certain time in a child’s life, covering any action undertaken when a child needs special support to: a) ensure and enhance her/his personal development; b) strengthen the family’s own competences, and c) promote the social inclusion of the family and the child’ (European Agency, 2010, p.7). For example, Hemmeter, Fox, Jack & Broyles (2007) described essential elements of a program-wide model of positive behavior support in preschool that reflects an understanding of the needs of young children and the unique characteristics of early childhood settings. Key considerations related to providing early interventions include the: availability, quality and quantity of services across circumstances (e.g. urban/rural regions, high/low income).

2.1 Barriers and enablers related to early intervention

Barriers to providing early intervention that are well-described in literature include availability of services and awareness of services. But equally important are barriers that relate to the human condition, including emotion (e.g. parental denial or shame concerning a child’s condition), inertia (e.g. lacking a sense of urgency leads to no action being taken) or insecurity (e.g. not knowing where to turn or to whom). When services take long to be accessed, are not offered in the language of the family in need, or clash with cultural or religious beliefs, then they are also less likely to be used.

The converse is also true: multilingual, low-threshold contact, followed by swift initiation of action pose powerful enablers to early intervention. For example, Williams, Perrigo, Banda, Matic and Goldfarb (2013) investigated barriers to accessing services for children under age 3 presenting with language delays and behavioral difficulties, including language barriers for Spanish-speaking families. Their study revealed that reaching an attentive live person speaking the family home language in a phone call, and obtaining an appointment by the end of the phone call, yielded a significant influence on the use of services.

3. Support

3.1 Key considerations related to support

The presence or absence of *support* can powerfully influence if, how and when detection, assessment and intervention actions are taken. Here, support refers to the human and material resources provided to caregivers for the purposes of facilitating them in their role vis a vis the child. Parental support can take the form of information and exchange, with peers or professionals; or teacher support may include cooperation with professionals in or outside of the school. For example, Salisbury, Crawford, Marlowe and Husband (2001) successfully piloted an interagency planning project to support parents by coordinating the information about and delivery of services for families whose children are served by multiple agencies. Also, Duda, Clarke, Fox and Dunlap (2008) implemented a support program for siblings in the home environment, which proved quite promising for reducing aggregate levels of challenging behavior within the families involved. While support may be focused on a child's immediate concerns (e.g. competencies to be developed this week or this year), support is also essential to anticipating and enabling appropriate and smooth transitions (e.g. into formal schooling, from one school to another, from schooling to employment). Legislation has taken steps to support the families of young children with special needs (e.g. Trohanis, 2008), but challenges remain.

3.2 Barriers and enablers related to support

One barrier to implementing support to caregivers of children with special needs is the simple fact that it is extremely difficult. In an investigation concerning an interagency transition agreement, Wischnowski, Fowler and McCollum (2000) conclude that doing so constitutes a complex, multidimensional and sequential process. Another barrier is presented by the lack of established, clear, measurable objectives. While these are quite common in programs focusing in at-risk children, they tend to be rather rare in those programs focusing on support (McDonnell, Brownell, & Wolery, 2001). This may be a function of the fact that both tools and a culture of measuring support outcomes have historically been lacking.

But despite the barriers, evidence of positive change is available. The importance of outcome measures for support mechanisms is becoming more widely appreciated and tools are beginning to be developed. For example, the Family Quality of Life (FQOL) scale is an outcome measure of intervention effectiveness that has been shown to hold promise for use with both fathers and mothers (Wang et al., 2006). Similarly, accountability levels are becoming more widely understood. For example, Bailey (2001) proposed a three-level approach to understanding accountability of support to families of children in early intervention and preschool programs: (a) providing the legally required services for families; (b) providing services that are considered recommended; and (c) achieving certain outcomes as a result of working with families. He argues for policy changes that could facilitate the evaluation of parent involvement and family support efforts. Further, research clearly indicates that both teachers and families want support (McConnell, 2001; McDonnell et al., 2001). Additionally, communities want to see people using the services that they provide (Schwartz & Rodriguez, 2001).

4. Towards an integrated cycle of early intervention

4.1 Interaction between key processes

The key processes discussed above (detection and assessment; intervention; and support) are all related to one another. They also include multiple sub-components, as the descriptions suggested. When viewed together, they form an on-going cycle, with an ideal sequence – though the harsh reality is that the activities described do not always occur at all; and when they do occur, they often do not represent the ideal sequence.

Figure 1 shows how the key processes and their sub-components together form an ideal sequence. In this figure, detection and assessment are represented as two separate stages on the right hemisphere (monitoring and detection, and assessment and planning, respectively). On the left hemisphere are the two sub-components related to intervention: the intervention itself, which inherently includes explicit observation and where needed, adjustment. It also includes measurement of its accompanying outcomes (evaluation) and reassessment of the approach (reflection). Each of the activities in the four quarters is shaped by interactions with the others, as well as various support mechanisms. Finally, these processes do not take place in a vacuum, but against the backdrop of policy, practice and research – each of which affords opportunities and sets limits on what is possible.

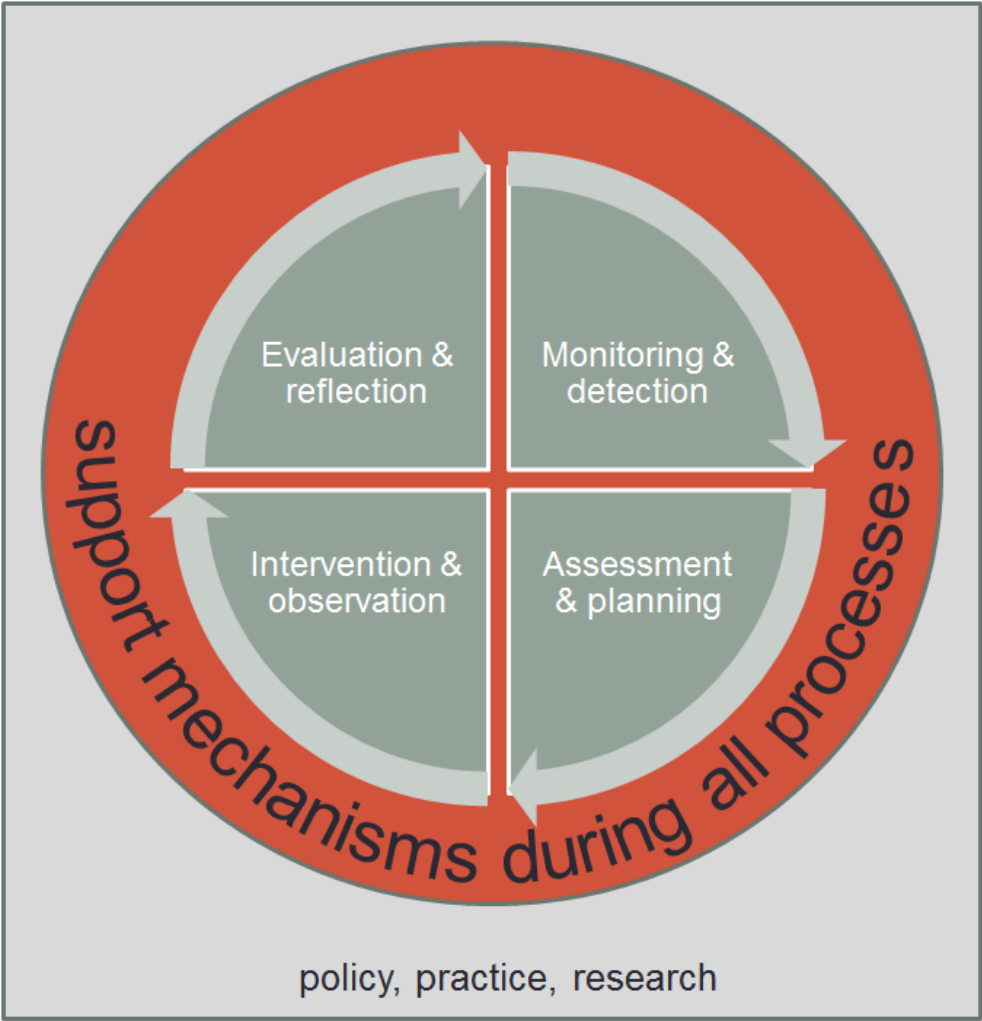


Figure 1: Interaction between key processes of early intervention

4.2 The roles of research, policy and practice

As shown in Figure 1, the key processes of early intervention relate to each other, but are also influenced by policy, practice and research. While they are inextricably tied together, the actors, mechanisms and reward systems within each field often contribute to more isolated, rather than interacting, systems. To advance the quality of early intervention, work is especially required at existing intersections of research, policy and practice. This requires effort from each system, to establish heightened alignment and increased impact of interventions. Specifically, it requires policies that fund connected (as opposed to isolated) research and development work involving practitioners and researchers within communities and schools. It requires practitioners that are committed to sharing their work outside of every-day practice, with other stakeholders (e.g. researchers, policymakers) as well as researchers who value practical and usable knowledge alongside or as part of developing theoretical understanding.

4.3 Toward mutually beneficial policy, practice and research interactions

For over a decade, the need for socially robust and relevant knowledge production has been increasingly on called for (Gibbons, 1999, 2000). This means that researchers in all fields should be producing knowledge that can reliably impact society at large. More recently, attention has also been given not only to the use of scientific knowledge *for* educational practice, but also to how it is produced (Levin, 2013; Vanderlinde & van Braak, 2010). Specifically, there is growing attention for how researchers and practitioners can collaboratively bear the responsibility for both producing and using relevant knowledge in education. In the context of early intervention, this means that attention must be given to not only producing knowledge that is relevant and usable *for* those who provide services, but that increasingly, such new knowledge should be constructed *in collaboration with* those who provide early intervention services. To enable this, policies are needed that support research-practice interactions, e.g. through integrated funding mechanisms, and alignment with the culture of researchers (e.g. work in practice is valued in performance reviews) and of practitioners (e.g. organizations allocate time for participation in research projects). In short, positioning mutually-beneficial policy, practice and research interactions requires focused attention at the nexus of these three, as shown in Figure 2.



Figure 2: Positioning mutually-beneficial policy, practice and research interactions

In addition to focused attention, also needed are convincing descriptions of mutually beneficial policy, practice and research interactions. Voogt, McKenney, Pareja Roblin, Ormel & Pieters (2012) conducted a systematic review of literature to analyze how interactions manifest themselves in three forms of research-practice relationships: linear, context-focused, and interactive (Nutley, Walter, & Davis, 2007). First, Research Development Diffusion (RDD) projects feature a linear approach using scientific research to develop educational products, and disseminate these to a large audience. Second, Design-Based Research (DBR) is an iterative, context-focused approach in which researchers and practitioners develop and evaluate solutions for educational problems. Third, Teacher Knowledge Communities (TKCs) are based on collaboration between teachers, facilitated by researchers, aiming to improve practice. The analyses concerned research-practice interactions and focused on: actors (researchers, teachers, intermediaries) and their roles; knowledge utilization, where we distinguish between formal knowledge (evidence-based knowledge), knowledge derived from data (evidence-informed knowledge) and knowledge derived from personal experience (colloquial evidence); and knowledge generation, where we differentiate between contributions to formal (scientific) knowledge and contributions to the specific project (local knowledge). The findings from this study provide evidence for the value of supporting research-practice interactions as well as recommendations for ways to support specific types. The studies reviewed provide inspiring examples of three differing types.

4.4 Recommendations

While the study described above provides useful starting points, an even more relevant contribution could come from the initiation of research specifically targeting *early intervention* research-practice interactions, and policies that enabled them. This could focus on multiple fields – not just education (as in the example above) – but also health, child development, psychology and social services. Ideally, multiple studies would, together, portray existing work in relation to the processes described above: monitoring and detection; assessment and planning; intervention and observation; evaluation and reflection; and support mechanisms. If well-documented and expertly conducted, such investigation could serve multiple purposes, each of which can contribute to making early intervention a reality for more children. Such studies could: (1) demonstrate clearly the *added-value* of aligning policy-practice-research work; (2) establish quality estimates of *societal costs* due to isolated (not coordinated) work; and (3) document convincing examples of *specific approaches*. Taken together, such findings could substantially broaden the evidence base that informs policy, shapes practice and deepens research-based understandings.

In addition to studying previous work at the research-practice-policy nexus, work is also needed to document, describe and explain new initiatives. Understanding innovation is notoriously difficult, and extremely complex in the field of early intervention due to the variety of contexts, actors, professional reward systems and disciplinary cultures. At the same time, such understanding is urgently needed to drive policymaking and program development that can be well-conceived, feasibly implemented and ultimately experienced at scale in ways that yield meaningful change for children with special needs and their families. Collaboration between researchers, practitioners and policymakers can also contribute to the creation of new knowledge about early intervention innovation. McKenney and Reeves (2012) identify four characteristics of

innovations that are prone to successful implementation. Each of these warrants attention in seeking to understand early intervention initiatives. Specifically, successful innovations tend to be: value-added, clear, compatible and tolerant; each of these is described briefly below.

Value-added innovations offer something better than what is already in place. Similar to Rogers' (2003) notion of the relative advantage, the potential benefits of value-added innovations visibly outweigh the investments required to yield them. Relating to the discussion above, value-added interventions attend to measurable positive changes for children with special needs and/or the lives of those for whom support systems are targeted. *Clear* innovations enable participants to easily envision their involvement. Innovations may be clear through high levels of explicitness (Fullan & Pomfret, 1977) through a priori specifications of procedures (Doyle & Ponder, 1978) and/or interactive mechanisms whereby developers and users co-define (elements of) the innovation. For example, screening and referral systems that are easy to understand and use are clear. *Compatible* innovations are congruent with existing values, cultures, practices and beliefs (Doyle & Ponder, 1978; Fullan & Pomfret, 1977; Rogers, 2003; Zhao, Pugh, Sheldon, & Byers, 2002). They are still innovative, but the innovations and/or their underlying assumptions do not violate or reject fundamental concerns and principles of those involved. Such fundamental convictions might include valuing parental knowledge or ensuring that untested treatments will in any case do no harm. *Compatible* innovations are also aligned with non-changeable aspects of the educational system, such as assessment frameworks or policies (McKenney, Nieveen, & van den Akker, 2006). For example, municipal funding for special needs programs of young children may come from health care budgets, or from educational budgets; some creative programs have found ways to align portions of work with multiple funding bodies such that the whole innovation is truly greater than the sum of its parts. Finally, *tolerant* innovations are those that "degrade gracefully" (Walker, 2006) as opposed to yielding "lethal mutations" (Brown & Campione, 1996) during the natural variation in enactment that inevitably comes along with differing contexts, resources, expertise, acceptance levels and so on. Tolerance refers to how precisely core components must be enacted for the innovation to be true to its goals, and how well an innovation withstands local adaptations. Tolerant early interventions are those that withstand (and possibly even invite) productive adaptations, especially when in the hands of reflective professionals (e.g. therapists, teachers, doctors).

Finally, whether based on past work or new innovations, investigation and documentation of innovations must meet certain criteria to be of value. Specifically, the work must attend to the values of each audience. For *researchers*, such investigation must adhere to scientific norms and be documented in a transparent fashion. For *practitioners*, the added-value of innovations and the links with their everyday practice must be made explicit in ways that are convincing. For *policymakers*, the evidence must make use of reliable quality indicators and include financial implications in order to use findings to lobby for policies that fund cross-cutting interaction.

4. Closing comments

This contribution has outlined key processes that are crucial to achieving early intervention as well as barriers and enablers of each. The model shown in Figure 1 illustrates sub-processes and the relationships between each element: monitoring and

detection; assessment and planning; intervention and observation; evaluation and reflection; and support mechanisms. Because each of these is influenced by policy, practice and research, it was argued that work on early intervention cannot be conceived of in a vacuum, but rather must take these contexts into account. A call was made for more work to focus on the interaction and alignment of goals at the nexus of research, policy and practice. After giving examples of research-practice interactions facilitated by policies, recommendations for realizing this in the context of early intervention were given. The recommendations pertained to: previous work showcasing research-practice-policy synergies; new work of this kind; characteristics of innovations that warrant attention; and the kinds of evidence that are valued by differing kinds of stakeholders. The importance and societal benefit of early intervention for the development of young children with special needs is convincingly documented. What is most urgently needed now is work to inform how early intervention – including the sub-components described – can best be tackled. And similar to early intervention itself – time is of the essence. The sooner we commit to and take action to understand and improve early intervention, the more children, families and society stand to benefit.

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